

## ABSTRACT OF THE DISCLOSURE

5 A pixel cell array of a light valve does not  
rely upon photolithography to define inter-pixel  
spacing. Instead, adjacent pixels of the array are  
electronically insulated from one another by spacers  
formed by etching a dielectric layer conforming to  
sidewalls of a patterned sacrificial layer. Removal  
of the sacrificial layer, followed by formation of a  
metal layer over the dielectric spacer structures and  
10 chemical-mechanical polishing of the metal layer,  
completes fabrication of the array. The thickness of  
the spacer sidewalls, and hence inter-pixel spacing,  
is determined by the rate of formation of the  
conforming dielectric layer. This rate can be  
15 precisely controlled to produce spacer structures  
having a thickness of less than the minimum linewidth  
of a given photolithography system. In this manner,  
pixel arrays having significantly reduced inter-pixel  
spacing and correspondingly higher cell densities can  
20 be created. Arrays with even greater pixel densities  
can be created with low-k dielectric materials used  
to form the dielectric layer and the resulting spacer  
structures.